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Seismological Society of America



Annual Report

SAN FRANCISCO, CAL.
APRIL 1908

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CHICAGO



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"For the acquisition and diffusion of knowledge concerning earthquakes and allied phenomena, and to enlist the support of the people and the government in the attainment of these ends."



REPORT OF THE PRESIDENT

In this first year of its organization the Seismological Society of America has increased confidence in the necessity and usefulness of its existence.

We believe the Society can keep the physicist, geologist and geodesist so informed that they will refer to its announcements as authority and that the engineer, architect and builder will apply its information in the design and construction of works of engineering and in the erection of public and private buildings.

The Society has been collecting data of earthquake shocks on this coast and throughout the Pacific and proposes to keep in close relation with institutions, societies and observers who have seismological instruments.

The area of the Pacific Ocean is greater than the exposed land surface of the globe, yet notwithstanding the great extent of this area, information concerning many of the dislocations of its ocean-floor is preserved in two ways other than the usual records of seismographs, namely, by the narrative of persons feeling the shocks received by vessels in the vicinity of dislocations and by the records made upon the marigraph of self-registering tide gauges established at different points on the Pacific Coast.

At San Francisco a number of marigraphic records of great dislocations near Japan, Peru, Chili, Krakatoa, Alaska and in regions unknown have been made. For the purpose of gathering and preserving data of this kind the Superintendent of the U. S. Coast & Geodetic Survey has been petitioned on behalf of the Society for an examination of the monthly marigraphs and already some information from this source has been received. The Superintendent was also good enough to express a readiness to afford the Society every facility for making an examination of the marigraphs from 1853 to date. It is hoped that these marigraphic records will enable us to determine whether some



of the disturbances felt on land have their origin in the adjacent ocean bed.

Of course, one serious difficulty attaches to all new organizations of this character and that is the lack of funds for publication but as soon as the Society sees the way clear publications will be undertaken.

A few subscribers who would guarantee fifty dollars each per annum for a few years would assuredly enable the Society to publish regularly.

We earnestly appeal to our friends and to all interested in the subject of our investigations to become members of the Society.

Respectfully submitted,

GEORGE DAVIDSON,

President.

REPORT OF THE SECRETARY

The Seismological Society of America was organized at San Francisco in the fall and winter of 1906 largely as a result of the great earthquake of April 18th of that year. It was then brought forcibly home to us that seismology was a science unorganized, and practically undeveloped in America, that properly equipped seismographic stations were altogether too few and far between, and that there was an unfortunate lack of knowledge among our scientists, architects, engineers, and people in general concerning the mode of action of earthquakes, and the best methods of providing against their more destructive effects. The Society was established to develop organized effort in seismology in America, to collect accurate information concerning earthquakes, to disseminate the truth among the people, to inform them of the methods devised in various countries for the protection of life and property, to replace the element of terror or helplessness which results from imperfect knowledge, by an intellectual interest in natural phenomena and by the taking of reasonable precautions.

Although no part of the continent is proof against the destructive effects of great earthquakes, the Pacific Coastal region is the most active geological province, and it seemed best that the headquarters of the Society should be where the greater opportunities for investigation in the field, and the greater popular needs and interests lie. Early in 1907 the Society was incorporated and San Francisco chosen as its principal place of business.

During the last year the Society has not accomplished what its organizers hoped for and this can be traced very directly to the prevailing financial conditions. The losses following the earthquake and fire of April, 1906 made many withhold their support until later and then the financial depression forced another postponement.

However, a very good start has been made, and a nucleus formed about which we hope to build a strong organization.

At present there is a membership list of 149, an examination of which will show that it contains a good representation of recognized scientists in all parts of the United States and Canada.

The Society is not yet in a position to employ a paid secretary and lack of time and money have prevented canvassing for members on a large scale.

Among those to whose attention the organization and aims of the Society have been brought, the proportion of applications for membership have been high.

In its aim to encourage investigations and disseminate information, the Society desires to establish a regular publication. This matter has been discussed earnestly in the scientific committee and the board of directors and the intention at present is to commence the publication of a quarterly journal as soon as a sufficient fund is on hand to guarantee the publication for a year. By the courtesy of President Wheeler of the University of California, it will be possible to have our journal printed by the University Press at practically cost price. As the dues are so low, the sum available for publication does not grow very fast and it would be very desirable if some of the members could make or obtain donations for a publication guarantee fund. It was our hope of getting contributions to an endowment or guarantee fund that has been affected most by the financial stringency.

However, to further this aim of disseminating information, the Society has used its influence to have its members supplied with whatever publications on Seismology this year have been available. We must thank the United States Geological Survey and Professors McAdie and Marvin of the Weather Bureau for the following, which have been sent out to our members.

Catalogue of Earthquakes of the Pacific Coast, 1897-1906; by A. G. McAdie. Smithsonian Miscell. Coll. Vol. XLIX No. 1721, (1907).

Improvements in Seismographs with Mechanical Registration, by C. F. Marvin. Monthly Weather Review, May 1906

The Mexican Earthquake of April 15, 1907, with notes on

the nature of the movements induced by earthquakes; by C. F. Marvin. *Monthly Weather Review*, April, 1907.

The San Francisco Earthquake and Fire, April, 1906. U. S. Geological Survey. *Bulletin No. 324* (1907).

An effort has been made to get copies of the report of the State Earthquake Investigation Commission, (now in press), under some favorable arrangement, for our members. But the present policy of the Carnegie Institution does not permit of compliance with our request. For the benefit of the members of the Society and with the kind permission of the Carnegie Institution, Dr. G. K. Gilbert has kindly consented to prepare an illustrated digest of the report of the State Earthquake Investigation Commission, and a copy will be sent to each of our members.

Among other matters which have received attention during the year are the securing of certain records from the tide-recording gauges of the U. S. Coast and Geodetic Survey and the effort to have tracings systematically made of the marigraphic earthquake records in the possession of that Survey; the collection of reports both on sea and land; and the construction of a cheap but reliable time apparatus. A report upon the best form of seismographs is expected shortly from the committee on instruments, and several institutions have expressed their willingness to install instruments upon the recommendation of the Society. The Society has tried to further the plans for the organization of an institute of seismology under the auspices of the Smithsonian Institution and hopes to be able to co-operate with the International Association of Seismology and the Committee of Seismology of the American Association for the Advancement of Science.

The Society would be pleased to receive gifts of papers or books published by or available through its members and hopes to gradually build up a library on seismology.

Respectfully submitted,

GEORGE D. LOUDERBACK,

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